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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/635,280	08/09/2000	RAINER H. WISCHINSKI	SAA-34-2	4936

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SQUARE D COMPANY
INTELLECTUAL PROPERTY DEPARTMENT
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PALATINE, IL 60067

EXAMINER

LAZARO, DAVID R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 12/09/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary

Application No.

09/635,280

Applicant(s)

WISCHINSKI, RAINER H.

Examiner

David Lazaro

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

Claims 1-23 are pending in this Office Action.

Claims 1, 3, 6, 12, 14-18 and 21-23 have been amended.

Claims 1-23 remain rejected but on new grounds of rejection.

Response to Arguments

1. The examiner withdraws the 35 U.S.C. §112 second paragraph rejection for Claim 6.
2. The examiner withdraws the 35 U.S.C. §102(b) rejection based on U.S. Patent 5,162,986 by Graber et al. for Claims 1, 2, 4-7, 12, 13, and 15-22.
3. The examiner withdraws the 35 U.S.C. §103(a) rejection based on Graber et al. in view of U.S. Patent 6,055,632 by Deegan et al. for Claims 8-11.
4. The examiner withdraws the 35 U.S.C. §102(e) rejection based on U.S. Patent 6,263,487 by Stripf et al. for Claims 1, 2, 4-7, 12, 13, and 15-22.
5. The examiner withdraws the 35 U.S.C. §103(a) rejection based on Stripf et al. in for Claims 3, 14 and 23.

6. Applicant's arguments with respect to Claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

7. The Applicant argues that Stripf et al. does not disclose an application program for an automation network being transmitted in response to a request for a network address. However, U.S. Patent 5,974,547 by Klimenko discloses this.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-23 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Although the applicant does state different embodiments could be applied, the specification does not describe how a "network address request" could be used to select an application program in such a way as to enable one skilled in the art to make and/or use the applicants invention. The specification does describe a BOOTP or DHCP request for obtaining an address on the network (Page 6 lines 1-7 of Specification), but there is no reference made to using the BOOTP, DHCP or similar address request to select an application program. The specification consistently

describes an application program being selected in response to a message requesting an application program, not a network address.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 2, 4-7, 12, 13, 15, 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,263,487 by Stripf et al. (Stripf) in view of U.S. Patent 5,974,547 by Klimenko (Klimenko).

12. With respect to Claim 1, Stripf teaches a control system (Col. 2 lines 65-67) comprising an automation device operably connected to a network (Col. 2 lines 3-9), a network device operably connected to the network (Col. 2 lines 3-9), and an application program stored in the network device (Col. 3 lines 4-7), wherein the application program controls the automation device (Col. 3 lines 57-59). Stripf does not explicitly disclose the application program being selected in response to a network address request message. However it is well known in the art that when a device is requesting an address on the network using a protocol such as BOOTP or DHCP, an application program can be selected in response to the network address request as shown by Klimenko (Col. 9 line 66 - Col. 10 line 25, and Col. 10 lines 33-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the

system disclosed by Stripf and modify it as indicated by Klimenko wherein the application program is selected in response to a network address request message received at the network device and sent from the automation device. One would be motivated to have this as it aids administration of network devices in allowing programming and addressing to be assigned to specific devices (Col. 10 lines 30-40 and lines).

13. With respect to Claim 2, Stripf in view of Klimenko teaches all the limitations of Claim 1 and further teaches the application program comprises an executive code and a user code (Col. 2 lines 47-50 and Col. 4 lines 6-9 of Stripf).

14. With respect to Claim 4, Stripf in view of Klimenko teaches all the limitations of Claim 1 and further teaches the automation device is a programmable logic controller (See Fig. 1 of Stripf).

15. With respect to Claim 5, Stripf in view of Klimenko teaches all the limitations of Claim 1 and further teaches the network device is a server (See Fig. 1 of Stripf).

16. With respect to Claim 6, Stripf in view of Klimenko teaches all the limitations of Claim 5 and further teaches the server has a TCP/IP protocol (Col. 2 lines 7-9 of Stripf).

17. With respect to Claim 7, Stripf in view of Klimenko teaches all the limitations of Claim 1 and further teaches the network is Internet (Col. 1 lines 65-67 of Stripf).

18. With respect to Claim 12, Stripf teaches a method of operating a control system on a network (Col. 2 lines 65-67) comprising the steps of providing a network device for storing an application program to be executed on an automation device (Col. 3 lines 4-7), it is inherent in Stripf that a message for requesting a network address from the

automation device is transmitted (Col. 2 lines 3-9), transmitting an application program to the automation device (Col. 3 lines 15-18), and installing the application program on the automation device (Col. 3 lines 57-59). Stripf does not explicitly disclose the application program being selected in response to the network address request. However it is well known in the art that when a device is requesting an address on the network using a protocol such as BOOTP or DHCP, an application program can be selected in response to the network address request as shown by Klimenko (Col. 9 line 66 - Col. 10 line 25, and Col. 10 lines 33-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Stripf and modify it as indicated by Klimenko wherein the application program is selected in response to a network address request message. One would be motivated to have this as it aids administration of network devices in allowing programming and addressing to be assigned to specific devices (Col. 10 lines 30-40 and lines).

19. With respect to Claim 13, Stripf in view of Klimenko teaches all the limitations of Claim 12 and further teaches the step of executing the application program on the automation device (Col. 3 lines 57-59 of Stripf).

20. With respect to Claim 15, Stripf in view of Klimenko teaches all the limitations of Claim 12 and further teaches an executive and user program code for the automation device (Col. 2 lines 47-50, Col. 4 lines 6-9 of Stripf). It is implicit in Stripf in view of Klimenko that the user program is selected in response to the message requesting the network address (Col. 3 lines 15-18 and Col. 4 lines 16-20).

21. With respect to Claim 17, Stripf teaches a network control system (Col. 2 lines 65-67) comprising means for operably connecting a network device to the network control system (Col. 2 lines 3-9), the network device stores an application program for controlling an automation device (Col. 3 lines 4-7), means for transmitting a message requesting the a network address (Col. 2 lines 3-9), means for selecting the application program in response to a message (Col. 3 lines 13-18), means for transmitting the application program to the automation device (Col. 3 lines 13-18), and means for installing the application program (Col. 3 lines 57-59). Stripf does not explicitly disclose selecting the application program in response to the message requesting the network address. However it is well known in the art that when a device is requesting an address on the network using a protocol such as BOOTP or DHCP, an application program can be selected in response to the network address request as shown by Klimenko (Col. 9 line 66 - Col. 10 line 25, and Col. 10 lines 33-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Stripf and modify it as indicated by Klimenko wherein the application program is selected in response to a network address request message. One would be motivated to have this as it aids administration of network devices in allowing programming and addressing to be assigned to specific devices (Col. 10 lines 30-40 and lines).

22. With respect to Claim 18, Stripf in view of Klimenko teaches all the limitations of Claim 17 and further teaches the means for customizing the application program to

meet the minimum requirements for executing the application program in response for the network address (Col. 3 lines 15-18 and Col. 4 lines 17-20 of Stripf).

23. With respect to Claim 19, Stripf in view of Klimenko teaches all the limitations of Claim 17 and further teaches the automation device is a controller (See Fig.1 ref#6 of Stripf).

24. With respect to Claim 20, Stripf in view of Klimenko teaches all the limitations of Claim 17 and further teaches the network device is a server (See Fig. 1 of Stripf).

25. With respect to Claim 21, Stripf teaches a method of operating a network control system on a network (Col. 2 lines 65-67) comprising the steps of providing a network device for storing an application program to be executed on an automation device (Col. 3 lines 4-7), requesting a network address for the automation device (Col. 2 lines 3-9), selecting an application program in response to a message (Col. 3 lines 13-15), transmitting the application program to the automation device (Col. 3 lines 15-18), and installing the application program on the automation device (Col. 3 lines 57-59). Stripf does not explicitly disclose selecting the application program in response to a network address request. However it is well known in the art that when a device is requesting an address on the network using a protocol such as BOOTP or DHCP, an application program can be selected in response to the network address request as shown by Klimenko (Col. 9 line 66 - Col. 10 line 25, and Col. 10 lines 33-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Stripf and modify it as indicated by Klimenko wherein the application program is selected in response to a network address request message.

One would be motivated to have this as it aids administration of network devices in allowing programming and addressing to be assigned to specific devices (Col. 10 lines 30-40 and lines).

26. With respect to Claim 22, Stripf in view of Klimenko teaches all the limitations of Claim 21 and further teaches customizing the application program to meet the minimum requirements for executing the application program (Col. 3 lines 15-18 and Col. 4 lines 17-20 of Stripf).

27. Claims 3, 14, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stripf in view of Klimenko as applied to claim 1 above, and further in view of "A Customizable Library to support Software Synthesis for Embedded Applications and Micro-Kernel Systems" by Ditze.

28. With respect to Claim 3, Stripf in view of Klimenko teaches all the limitations of Claim 1 and further teaches the user code is selected based on a network address request (Col. 4 lines 17-20 of Stripf) but does not explicitly disclose the executive code being selected based on the user code. Ditze teaches the executive code can be selected based on the user code (Page 90, section 3.2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the system disclosed by Stripf in view of Klimenko and modify it as indicated by Ditze wherein the user code is selected in response to the network address request message sent from the automation device and the executive code is selected in response to the user code selected. One would be motivated to have to this as it would optimize the application

program by helping to eliminate run-time and memory overhead (Page 90, section 3.2 first paragraph).

29. With respect to Claim 14, Stripf in view of Klimenko teaches all the limitations of Claim 12 and further teaches identifying the message for requesting the network address and selecting a user application program in response to the message requesting the network address (Col. 4 lines 17-20 of Stripf) but does not explicitly disclose selecting an executive program in response to the user application program selected. Ditze teaches the executive code can be selected based on the user code (Page 90, section 3.2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Stripf in view of Klimenko and modify it as indicated by Ditze wherein the step of selecting an application program in response to the request for the network address comprises the steps of identifying the message for requesting the network address, selecting a user application program in response to the message requesting the network address, and selecting an executive program in response to the user application program selected. One would be motivated to have to this as it would optimize the application program by helping to eliminate run-time and memory overhead (Page 90, section 3.2 first paragraph).

30. With respect to Claim 16, Stripf in view of Klimenko in further view of Ditze teaches the executive program code is customized in response to the message requesting the network address to meet the minimum requirements for executing the application program (Page 90, section 3.2).

31. With respect to Claim 23, Stripf in view of Klimenko further teaches selecting a user code in response to the message (Col. 4 lines 17-20) but does not explicitly disclose the customizing of the application program comprising selecting an executive code in response to the user code. Ditze teaches the executive code can be selected and customized based on the user code (Page 90, section 3.2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to take the method disclosed by Stripf in view of Klimenko and modify it as indicated by Ditze wherein the customizing the application program comprises selecting a user code in response to the message requesting the network address and selecting an executive code in response to the user code selected. One would be motivated to have to this as it would optimize the application program by helping to eliminate run-time and memory overhead (Page 90, section 3.2 first paragraph).

32. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stripf in view of Klimenko as applied to claim 1 above, and further in view of U.S. Patent 6,055,632 Deegan et al. (Deegan).

33. With respect to Claim 8, Stripf in view of Klimenko does not teach the network is Ethernet. Deegan teaches the use of an Ethernet network for downloading software to programmable controllers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the control system as disclosed by Stripf in view of Klimenko use an Ethernet network as indicated by Deegan since Ethernet

provides high speed (Col. 5 lines 54-55 of Deegan). One would be motivated to have this since software can be upgraded more quickly.

34. With respect to Claim 9, Stripf in view of Klimenko does not teach the network is Profibus. Deegan teaches the use of an Ethernet network for downloading software to programmable controllers. Deegan suggests that other types of networks could be used although Ethernet is preferred (Col. 5 lines 54-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the control system as disclosed by Stripf in view of Klimenko use a Profibus network as indicated by Deegan. Profibus provides an automation system with protocol based on international standards. One would be motivated to use Profibus since this would allow communications between devices that follow those standards.

35. With respect to Claim 10, Stripf in view of Klimenko does not teach the network is ControlNet. Deegan teaches the use of an Ethernet network for downloading software to programmable controllers. Deegan suggests that other types of networks could be used although Ethernet is preferred (Col. 5 lines 54-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the control system as disclosed by Stripf in view of Klimenko use a ControlNet network as indicated by Deegan. ControlNet offers multiple controllers controlling I/O on the same link. One would be motivated to have this since other networks only allow one master controller on the link.

36. With respect to Claim 11, Stripf in view of Klimenko does not teach the network is Modbus+. Deegan suggests that other types of networks could be used although

Ethernet is preferred (Col. 5 lines 54-55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the control system as disclosed by Stripf in view of Klimenko use a Modbus+ network as indicated by Deegan. Modbus+ is a standard protocol in the automation industry. One would be motivated to use Modbus+ since many industry supplies implement Modbus+ protocol.

Conclusion


37. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 703-305-4868. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 703-308-6662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


David Lazaro
December 3, 2003


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER